

REMARKS

Applicants respectfully request further examination and reconsideration in view of the above amendments and the comments set forth fully below. Claims 27-30 and 35-44 were pending. Within the Office Action, Claims 27-30 and 35-44 have been rejected. By the above amendment, Claims 27-29, 35, 36, 40, 42 and 44 have been amended and Claims 39, 41 and 43 have been canceled. Accordingly, Claims 27-30, 35-38, 40, 42 and 44 are now pending.

Rejections Under 35 U.S.C. § 112

Within the Office Action, Claims 27-30 and 35-44 have been rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Specifically, it is stated within the Office Action that neither the specification nor drawings disclose what a bored interior with consistent dimension and consistent flow is. The applicants respectfully disagree.

Within the specification of the present invention, it is taught that “[a]s a result of the precision bored interior 630, there is a consistent flow of the reagent solution through each vial during both the dispensing and purging processes.” [Present Specification, p. 14, lines 5-6, emphasis added] Accordingly, it is clearly taught within the specification that the flow through each of the vials is consistent during both the dispensing and purging processes. The flow is consistent through each of the vials, such that when a similar reagent is used within two vials, the flow through the vials of the reagent will be consistent. Accordingly, the claims do not contain subject matter which was not clearly described in the specification. It is therefore requested that this rejection be withdrawn.

Within the Office Action it is further stated that there appears to be no support for maintaining a consistent flow through the bored interior during a flushing procedure by only forming a pressure differential to expel material from the vial. The applicants respectfully disagree. Within the specification it is taught that

[w]hen in an active state, the waste tube system 430 purges the material from the corresponding bank of vials. During the active state, the mobile tube 500 rises above the bottom portion of the chamber bowl 400 towards the drain plate 410. The drain plate 410 is rotated over to position a drain corresponding to the bank to be flushed, above the waste tube system 430. The mobile tube 500 then couples to this drain and the material is flushed out of the corresponding bank of vials and into the drain plate 420. The reagent solution is purged from the corresponding bank of vials due to a sufficient pressure

differential between a top opening 610 (Figure 6) and a bottom opening 640 (Figure 6) of each vial. This sufficient pressure differential is preferably created by coupling the mobile waste tube 500 to the corresponding drain. [Specification, page 12, lines 13-22, emphasis added]

It is further taught within the specification that

[e]ach bank of vials has a drain and can be selectively purged. To perform a purging operation, the drain of the corresponding bank of vials is coupled to a mobile waste tube. After coupling the drain to the mobile waste tube, a pressure differential is formed and the material within each of the vials within the corresponding bank of vials is expelled. [Specification, page 15, lines 8-11, emphasis added]

To purge material from a bank of vials, the motor 445 rotates the cartridge 170 in response to the computer system 800 such that the drain corresponding to the bank of vials to be purged is positioned above the waste tube system 430. The mobile waste tube 500 is then raised to engage the drain and the material within the bank of vials is expelled from the vials through the waste tube system 430. [Specification, page 16, lines 22-26, emphasis added]

Accordingly, from at least the above passages from the specification, there is support for maintaining a consistent flow through the bored interior during a flushing procedure by only forming a pressure differential to expel material from the vial. It is therefore requested that this rejection be withdrawn.

Within the Office Action, it is further stated that there appears to be no support for "... wherein the solid support and material formed on the solid support is retained above the frit, within the vial, during a flushing procedure, thereby forming reactionary material . . ." By the above amendment, Claim 36 has been amended to delete the phrase "thereby forming reactionary material." Therefore, it is respectfully requested that the rejection of Claims 27-30 and 35-44 under 35 U.S.C. § 112, first paragraph, be withdrawn.

Within the Office Action, Claims 27-30 and 35-44 have been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. Specifically, it is stated that regarding Claims 27-30 and 35-44 it is unclear what is characterized by "consistent dimension" and "consistent flow." As discussed above, it is clearly taught and clearly recited within the claims, that the flow through each of the vials is consistent during both the dispensing and purging processes. The flow is consistent through each of the vials, such that when a similar reagent is used within two vials, the flow through the vials of the reagent will be consistent.

It is further stated that the term “configured” is confusing. By the above amendment, Claims 27-29, 35 and 36 have been amended to delete the term “configured.”

It is further stated that it is unclear whether the recitation “. . . wherein the solid support and material formed on the solid support is retained above the frit, within the vial, during a flushing procedure, thereby forming reactionary material” refers to the solid support and the material formed thereon is retained on the frit to form reactionary material or the flushing procedure forms reactionary material. By the above amendment, Claim 36 has been amended to delete the phrase “thereby forming reactionary material.”

It is further stated that Claims 27 and 35 do not positively recite “a frit” by reciting “configured to hold a frit.” By the above amendment, Claims 27 and 35 have been amended to delete the term “configured.”

Accordingly, the Claims 27-30 and 35-44 do particularly point and distinctly claim the subject matter which applicants regard as the invention. It is therefore requested that this rejection be withdrawn.

Rejections Under 35 U.S.C. § 102

Within the Office Action, Claims 27-30 and 35-44 have been rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,368,823 to McGraw et al. (hereinafter “McGraw”). The applicants respectfully disagree. McGraw teaches automated synthesis of oligonucleotides. McGraw teaches that columns 11 are formed into a carrier plate 8 or built to utilize Luer fittings. McGraw does not teach a vial comprising a bored interior having a consistent dimension to hold a frit for retaining material within the vial above the frit and maintaining a consistent flow through the bored interior during a flushing procedure.

In contrast to the teachings of McGraw, the independent Claim 27 is directed to a vial comprising a bored interior having a consistent dimension to hold a frit for retaining material within the vial above the frit and maintain a consistent flow through the bored interior during a flushing procedure by only forming a pressure differential to expel material from the vial and a solid support retained within the vial above the frit after the flushing procedure. As discussed above, McGraw does not teach a vial comprising a bored interior having a consistent dimension to hold a frit for retaining material within the vial above the frit and maintaining a consistent flow through the bored interior during a flushing procedure. For at least these reasons, the independent Claim 27 is allowable over the teachings of McGraw.

Claims 28 and 40 are dependent on the independent Claim 27. As described above, the independent Claim 27 is allowable over the teachings of McGraw. Accordingly, the Claims 28 and 40 are both also allowable as being dependent on an allowable base claim.

The independent Claim 29 is directed to a vial comprising an exterior dimension to fit within a receiving hole of a cartridge thereby providing a pressure-tight seal between the vial and the cartridge, a bored interior having a consistent dimension to maintain a consistent flow through the bored interior during flushing procedures by only forming a pressure differential to expel material from the vial and a solid support retained within the vial above the frit after flushing procedures. As discussed above, McGraw does not teach a vial comprising a bored interior having a consistent dimension to maintain a consistent flow through the bored interior during flushing procedures. For at least these reasons, the independent Claim 29 is allowable over the teachings of McGraw.

Claims 30 and 42 are dependent on the independent Claim 29. As described above, the independent Claim 29 is allowable over the teachings of McGraw. Accordingly, the Claims 30 and 42 are both also allowable as being dependent on an allowable base claim.

The independent Claim 35 is directed to a vial. The vial of Claim 35 comprises a bored interior having a consistent dimension to hold a frit for retaining material above the frit and maintain a consistent flow through the bored interior during a flushing procedure by only forming a pressure differential to expel material from the vial, a top opening through which material is dispensed into the bored interior, a bottom opening of a diameter to retain material within the bored interior when no pressure differential is applied and through which material is flushed during the flushing procedure, an exterior dimension to form a pressure-tight seal between the vial and a cartridge when the vial is inserted into a receiving hole of the cartridge and a solid support retained within the vial above the frit after the flushing procedure. As discussed above, McGraw does not teach a bored interior having a consistent dimension to hold a frit for retaining material above the frit and maintain a consistent flow through the bored interior during a flushing procedure. For at least these reasons, the independent Claim 35 is allowable over the teachings of McGraw.

Claim 44 is dependent on the independent Claim 35. As described above, the independent Claim 35 is allowable over the teachings of McGraw. Accordingly, the Claim 44 is also allowable as being dependent on an allowable base claim.

The independent Claim 36 is directed to a vial. The vial of Claim 36 comprises a frit, a solid support, a bored interior having a consistent dimension to hold the frit for retaining the solid support above the frit and maintain a consistent flow through the bored interior during a flushing procedure by only forming a pressure differential to expel material from the vial, wherein the solid support and material formed on the solid support is retained above the frit, within the vial, during a flushing procedure, a top opening through which material is dispensed into the bored interior, a bottom opening of a diameter to retain material within the bored interior when no pressure differential is applied and through which material is flushed during the flushing procedure and an exterior dimension configured to form a pressure-tight seal between the vial and a cartridge when the vial is inserted into a receiving hole of the cartridge. As discussed above, McGraw does not teach a bored interior having a consistent dimension to hold the frit for retaining the solid support above the frit and maintain a consistent flow through the bored interior during a flushing procedure. For at least these reasons, the independent Claim 36 is allowable over the teachings of McGraw.

Claims 37 and 38 are dependent on the independent Claim 36. As described above, the independent Claim 36 is allowable over the teachings of McGraw. Accordingly, the Claims 37 and 38 are both also allowable as being dependent on an allowable base claim.

By the above amendment, Claims 39, 41 and 43 have been canceled.

Within the Office Action, Claims 27-30 and 35 have been rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,874,691 to Chandler (hereinafter "Chandler"). The applicants respectfully disagree. Chandler teaches devices for immunoassays which employ a reusable syringe or vacuum manifold to withdraw samples through a membrane. Chandler teaches that a membrane is supported in an assembly which interfaces with a syringe or other device for creating a pressure gradient. [Chandler, col. 2, lines 53-64, Figures 2 and 3] Chandler teaches that reagents or samples are held within the chamber until a vacuum is applied. [Chandler, col. 4, line 55 - col. 5, line 12] Once the vacuum is applied, Chandler teaches that all of the materials within the chamber are drawn through the membrane. [Chandler, col. 4, line 55 - col. 5, line 12] Chandler does not teach that material is retained above the membrane during and after the vacuum is applied. Chandler also does not teach that vials are held by a pressure-tight seal within a receiving hole of a cartridge.

Within the Response to Arguments section of the Office Action, it is stated that applicants argue that Chandler does not teach that material is retained above the membrane during and after the vacuum is applied, but that this limitation is not recited in the claims. By the above amendment, the independent Claims 27, 29 and 35 have been amended to recite a solid support retained within the vial above the frit after the flushing procedure. As previously noted, Chandler does not teach this limitation.

In contrast to the teachings of Chandler, the independent Claim 27 is directed to a vial comprising a bored interior having a consistent dimension to hold a frit for retaining material within the vial above the frit and maintain a consistent flow through the bored interior during a flushing procedure by only forming a pressure differential to expel material from the vial and a solid support retained within the vial above the frit after the flushing procedure. As discussed above, Chandler does not teach that material is retained within the vial after the flushing procedure. For at least these reasons, the independent Claim 27 is allowable over the teachings of Chandler.

Claim 28 is dependent on the independent Claim 27. As described above, the independent Claim 27 is allowable over the teachings of Chandler. Accordingly, the Claim 28 is also allowable as being dependent on an allowable base claim.

The independent Claim 29 is directed to a vial comprising an exterior dimension to fit within a receiving hole of a cartridge thereby providing a pressure-tight seal between the vial and the cartridge, a bored interior having a consistent dimension to maintain a consistent flow through the bored interior during flushing procedures by only forming a pressure differential to expel material from the vial and a solid support retained within the vial above the frit after flushing procedures. As discussed above, Chandler does not teach that a pressure-tight seal is provided between the vial and a receiving hole of a cartridge. Further, as also discussed above, Chandler does not teach that material is retained within the vial after flushing procedures. For at least these reasons, the independent Claim 29 is allowable over the teachings of Chandler.

Claim 30 is dependent on the independent Claim 29. As described above, the independent Claim 29 is allowable over the teachings of Chandler. Accordingly, the Claim 30 is also allowable as being dependent on an allowable base claim.

The independent Claim 35 is directed to a vial. The vial of Claim 35 comprises a bored interior having a consistent dimension to hold a frit for retaining material above the frit and maintain a consistent flow through the bored interior during a flushing procedure by only forming a pressure differential to expel material from the vial, a top opening through which material is dispensed into the bored interior, a bottom opening of a diameter to retain material within the bored interior when no pressure differential is applied and through which material is flushed during the flushing procedure, an exterior dimension to form a pressure-tight seal between the vial and a cartridge when the vial is inserted into a receiving hole of the cartridge and a solid support retained within the vial above the frit after the flushing procedure. As discussed above, Chandler does not teach that material is retained within the vial after the flushing procedure. Further, Chandler does not teach that a pressure-tight seal is provided between the vial and a cartridge. For at least these reasons, the independent Claim 35 is allowable over the teachings of Chandler.

Double Patenting

Within the Office Action, Claims 27-30 and 35-44 have been rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 36, 42, 44, 46, 47, 51, 66 and 70 of U.S. Patent No. 6,270,730. The applicants respectfully disagree. The applicants wish to point out that the present application is a divisional application of the application serial No. 09/097,966, which issued as U.S. Patent No. 6,270,730. The present application was filed as a divisional application after a restriction requirement was issued in the parent application No. 09/097,966. As provided by 35 U.S.C. § 121 “. . . A patent issuing on an application with respect to which a requirement for restriction under this section has been made, or on an application filed as a result of such a requirement, shall not be used as a reference either in the Patent and Trademark Office or in the courts against a divisional application or against the original application or any patent issued on either of them, if the divisional application is filed before the issuance of the patent on the other application. . . .” Accordingly, this double patenting rejection is improper as being based on a parent application in which a restriction requirement was issued. For at least these reasons, the double patenting rejection should be withdrawn.

Applicants respectfully submit that the claims, as amended, are now in a condition for allowance, and allowance at an early date would be appreciated. Should the Examiner have any questions or comments, they are encouraged to call the undersigned at (408) 530-9700 to discuss the same so that any outstanding issues can be expeditiously resolved.

Respectfully submitted,
HAVERSTOCK & OWENS LLP

Dated: August 26, 2004

By: Jonathan O. Owens
Jonathan O. Owens
Reg. No.: 37,902
Attorneys for Applicants

CERTIFICATE OF MAILING (37 CFR § 1.8(a))

I hereby certify that this paper (along with any referred to as being attached or enclosed) is being deposited with the U.S. Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to the: Commissioner for Patents, P.O. Box 1450 Alexandria, VA 22313-1450

HAVERSTOCK & OWENS LLP.

Date: 8/26/04 By: [Signature]